

## REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed July 26, 2006. Reconsideration and allowance of the application and pending claims 1-46 are respectfully requested.

### I. Claim Rejections - 35 U.S.C. § 103(a)

#### A. Rejection of Claims

Claims 1-14, 18-22, 24-37, and 41-45 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Browne et al.* (“*Browne*,” WO 92/22983) in view of *Sanna et al.* (“*Sanna*,” *Special Edition Using Windows NT Workstation 4.0*, Second Edition, Pages 128-143). Claims 15-17, 23, 38-40, and 46 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Browne* in view of *Sanna* in further view of *Hendricks* (“*Hendricks*,” U.S. Pat. No. 5,600,573 B1). Applicants respectfully traverse these rejections.

#### B. Discussion of the Rejection

The U.S. Patent and Trademark Office (“USPTO”) has the burden under section 103 to establish a *prima facie* case of obviousness according to the factual inquiries expressed in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquiries, also expressed in MPEP 2100-116, are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Applicants respectfully submit that a *prima facie* case of obviousness is not established

using the art of record.

**Browne in view of Sanna**

**Independent Claims 1 and 24**

Claim 1 and claim 24 are for a system and corresponding method, respectively.

Claim 1 recites (with emphasis added):

1. A system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:
  - a memory for storing logic;
  - a buffer space in the hard disk for buffering media content instances as buffered media content instance files; and
  - a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files to provide an indication of available free space, such that the indication is independent of the buffer space.***

Claim 24 recites (with emphasis added):

24. A method for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising the steps of:
  - buffering media content instances into buffer space as buffered media content instance files;
  - tracking the size of permanent media content instance files and buffered media content instance files; and***
  - providing an indication of available free space, such that the indication is independent of the buffer space.***

Applicants respectfully submit that *Browne* in view of *Sanna* fails to disclose, teach, or suggest at least the above-emphasized claim features. As acknowledged in the Office Action, “*Browne* fails to teach providing and [sic] indication of available free space, such that the indication is independent of the buffer space” (page 3). Applicants respectfully submit that *Sanna* does not remedy these deficiencies. That is, given the antecedent “the” in “independent of the buffer space,” it is clear that claims 1 and 24 contemplate a system having a ***buffer space***. *Sanna* does not disclose a buffer space. Thus, Applicants

respectfully submit that for at least this reason, the rejection of claims 1 and 24 should be withdrawn.

Additionally, Applicants respectfully submit that the use of *Sanna* is not obvious in combination with *Browne*, and further that its use is unreasonable given the disparity between Applicants' disclosed systems and methods and the systems disclosed in *Browne*.

The Office Action (page 3) alleges the following:

In analogous art *Sanna* teaches providing and [sic] indication of available free space, such that the indication is independent of the buffer space (Page 131 under configuring Hard Disk teaches Disk 2 in Figure 4.1 is a new physical hard drive; Page 136 Figure 4.11 teaches Disk 2 has been partitioned to have three drives E:, G:, and H:; On page 130 and 131 Figures 4.2 and 4.3 it teaches being able to determine the available free space of one drive independent of another drive).

At the time the invention was made it would have been obvious for one skilled in the art to modify the independent buffer space in the television system of *Browne* with the independent free space tracking system of *Sanna* for the purpose of using a well known concept in software to let the user know how much free space is available for recording programs.

Applicants respectfully disagree. *Sanna* (page 131-138) appears to provide instructions for partitioning drives in Windows NT and the use of a "Disk Administrator"(page 130) to show space on a drive. As explained above, *Sanna* does not disclose, teach, or suggest a *buffer space*, and consequently does not operate with *logic to track the size of permanent media content instance files and the buffered media content instance files*.

Indeed, "Disk Administrator," as described in *Sanna*, does not appear to disclose the logic to track the size of any particular type of files at all; let alone the *permanent media content instance files and the buffered media content instance files* of claims 1

and 24.

In addition, the use of *Sanna* evidences that the Office Action fails to enlist an “as a whole” analysis to the claims. According to established case law, “Title 35, section 103, requires assessment of the invention as a whole. This “as a whole” assessment of the invention requires a showing that an artisan of ordinary skill in the art at the time of the invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would have selected the various elements from the prior art and combined them in the claimed manner. *Princeton Biochemicals Inc. v. Beckman Coulter Inc.*, 75 U.S.P.Q.2d. 1051, 1054 (Fed. Cir. 2005). This showing has simply not been set forth. *Sanna* appears to address partitioning drive space as explained in the Office Action. The systems and methods disclosed in *Sanna* and used to accomplish this functionality have no bearing on providing ***an indication of available free space, such that the indication is independent of the buffer space.*** That is, the absence of any disclosure regarding ***buffer space*** evidences that *Sanna* has been selected as an art reference through hindsight reasoning. For at least these reasons, Applicants respectfully submit that *Sanna* should be withdrawn as an improperly combined reference.

Further, the Office Action (page 2-3, emphasis added) states:

Browne teaches a system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system comprising:

and a processor (page 13 third paragraph) configured with logic to track the size of permanent media content instance files and the buffered media content instance files (Page 7-8 and Page 24 last two lines and page 25 first two lines and Figure 6 upper right hand corner teach an indication of free space in storage section 104 and Page 7 last paragraph teaches a FIFO buffer element 104c being implemented and programs that are retained are moved to storage 104, ***so the available free space is separate from the buffer space.***

Applicants respectfully disagree for the same reasons asserted in Applicants' response to the February 8, 2006 Office Action. For instance, and briefly highlighting the main points from the last response, the third paragraph of page 7 and the last paragraph of page 20 (continued to the first 3 lines of page 21) in *Browne* provides the following (emphasis added):

[Page 7] Memory is cycled when the multi-source recorder player 100 is set to operate a FIFO buffer for auto recording storage allocation 104c in the storage section 104.

[pages 20-21] The auto recording storage allocation section 305 of setup page 300 allows the user to allocate a fixed portion of storage 104 for continuous FIFO buffering, as described above. The portion of storage allocated is designated as a percentage of all storage available in storage section 104, and as shown in bar 305a. The storage allocation section 305 also preferably displays the allocation numerically at 305b.

From this recited section, it is clear that the FIFO buffering capabilities provided through the auto recording storage allocation 104c is part of the storage section 104. That is, the auto recording storage allocation 104c is part of the storage section 104, and thus any discussion of capacity should address both sections of the storage. Further, although *Browne* does not provide an enabling disclosure with regard to the meaning of free program memory as applied in Figure 6 of *Browne*, it is reasonable to assume that free program memory is dependent on buffer space (and unreasonable to assume otherwise), in contrast to the above-emphasized claim language.

Additionally, Applicants respectfully note that nothing in *Browne* would suggest that the buffer allocation remains constant post-initial allocation (*e.g.*, from Figure 3) in implementations where programs are retained from the buffer space (see pages 7 and 8). For instance, according to *Browne* (see page 8), as a program is retained by the user or neural network from the buffer, such as a first program in the buffer, then the next program becomes the first program. There is no discussion of re-allocating the buffer space to

maintain the buffer allocation designated in Figure 3 as constant. Accordingly, one would reasonably surmise from *Browne* that the amount of free program memory would continue to be whittled away in like manner as programs are retained from the buffer, consistent with the free program memory having a dependency on the buffer. To accept the rationale of the Office Action, one would likewise conclude that the amount of free program memory has been reduced due to the retention of a program. However, one would also have to unreasonably assume that the buffer remains constant and further improperly read into the specification mechanisms for maintaining a constant buffer space in view of the retention of programs from the buffer that are not supported by the state of the art at the time of Applicants' filing date.

Applicants respectfully submit that for at least the above reasons, independent claims 1 and 24 are allowable over *Browne* in view of *Sanna*.

**Dependent Claims 2-14, 18-22, 25-37, and 41-45**

Because independent claim 1 and independent claim 24 are allowable over *Browne* in view of *Sanna*, respective dependent claims 2-14, 18-22 and 25-37, 41-45 are allowable as a matter of law for at least the reason that claims 2-14, 18-22, 25-37, and 41-45 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

### **Well Known Allegations**

Applicants respectfully submit that the subject matter pertaining to claims 1 and 24 and their dependant claims should not be considered well-known. As provided in MPEP § 2144.03:

Official notice without documentary evidence to support an examiner's conclusion is permissible only in some circumstances. While "official notice" may be relied on, these circumstances should be rare when an application is under final rejection or action under 37 CFR 1.113. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424, F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)).

Applicants have made no admissions, expressed or implied, with regard to any allegation of common knowledge or well-known art. With regard to the allegation of well-known art on pages 4 and 11-12, relating to claims 1 and 24, Applicants respectfully traverse this finding and submit that the subject matter noted above should not be considered well known. Applicants respectfully submit that the art of record, that is *Browne* in view of *Sanna*, fails to provide the necessary documentary evidence to support the allegation that the subject matter is well known, namely the allegation that follows:

In analogous art Sanna teaches providing and [sic] indication of available free space, such that the indication is independent of the buffer space (Page 131 under configuring Hard Disk teaches Disk 2 in Figure 4.1 is a new physical hard drive; Page 136 Figure 4.11 teaches Disk 2 has been partitioned to have three drives E:, G:, and H:; On page 130 and 131 Figures 4.2 and 4.3 it teaches being able to determine the available free space of one drive independent of another drive).

At the time the invention was made it would have been obvious for one skilled in the art to modify the independent buffer space in the

television system of Browne with the independent free space tracking system of Sanna for the purpose of using a well known concept in software to let the user know how much free space is available for recording programs.

(Office Action, pages 11-12) *Sanna* (page 131-138) appears to provide instructions for partitioning drives in Windows NT and the use of a “Disk Administrator” (page 130) to show space on a drive. As explained above, *Sanna* does not disclose, teach, or suggest a *buffer space*, and consequently does not operate with *logic to track the size of permanent media content instance files and the buffered media content instance files*.

Thus, to allege that it “would have been obvious for one skilled in the art to modify the independent buffer space in the television system of Browne with the independent free space tracking system of Sanna for the purpose of using a *well known concept* in software to let the user know how much free space is available for recording programs” (Office Action, page 3, emphasis added) is unreasonable at least because the “independent free space tracking system of Sanna” *Id.* specifically, “Disk Administrator,” is, *arguendo*, used to merely administrate or manage a disk. *Sanna* does not, as stated above, operate with logic to track the size of permanent media content instance files and the buffered media content instance files.

As a result, Applicants respectfully submit that at least because “Disk Administrator,” as described in *Sanna*, does not appear to track the size of any particular type of file including permanent media content instance files and the buffered media content instance files of claims 1 and 24, it would not have been well known for one skilled in the art to “modify the independent buffer space in the television system of Browne with the independent free space tracking system of Sanna,” (*Id.*) and hence



respectfully request that the Examiner support his finding with sufficient evidence, or withdraw the well-known allegation.

**Browne in view of Sanna in further view of Hendricks**

**Independent Claims 23 and 46**

Claims 23 and 46 are for a system and corresponding method, respectively. Claim 23 recites (with emphasis added):

23. A system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:  
a memory for storing logic;  
a buffer space in the hard disk for continuously buffering media content instances as buffered media content instance files; and  
*a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files, wherein the processor is further configured with the logic to provide a user interface, responsive to a user input, wherein the user interface provides the indication of available free space for permanently recording media content instances,* wherein the permanently recorded media content instances are configured as the permanently recorded media content instance files, wherein the permanently recorded media content instance files can be deleted from the storage device, wherein the user input is implemented with a remote control device, wherein the permanently recorded media content is from the buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the buffer space, the available free space, and permanently recorded space are located on the hard disk, wherein the buffer space and permanently recorded space are allocated from the free space on the hard disk, wherein the buffer space and permanently recorded space have physical locations on the hard disk, wherein the buffer space and the available free space is measured in units of hard disk space, wherein the processor is further configured with the logic to buffer analog broadcast media content instances, received at a communications interface, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance, wherein the processor is further configured with the logic to buffer digital broadcast media content instances, received at a communications interface, as digitally compressed media content instances, wherein the

processor is further configured with the logic to buffer digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local network, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances, wherein the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space, wherein the processor is configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files, wherein the processor is configured with the logic to increase the available free space by the amount of the space recovered from a deleted permanent media content instance files, wherein the indication of the free space available is configured in time of space available for the permanent media content instance files, wherein the processor is further configured with the logic to provide the user interface that provides an indication of available free space, such that the indication is unaffected by writes to and deletions from the buffer space.

Claim 46 recites (with emphasis added):

46. A method for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising the steps of:  
continuously buffering media content instances as buffered media content instance files;  
***tracking the size of permanent media content instance files and the buffered media content instance files;***  
***providing a user interface, responsive to a user input, wherein the user interface provides the indication of available free space for permanently recording media content instances,*** wherein the permanently recorded media content instances are configured as the permanently recorded media content instance files, wherein the permanently recorded media content instance files can be deleted from the storage device, wherein the user input is implemented with a remote control device, wherein the permanently recorded media content is from the buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the indication is unaffected by writes to and deletions from the buffer space, wherein the buffer space, the available free space, and permanently recorded space are located on the hard

- disk, wherein the buffer space and permanently recorded space are allocated from the free space on the hard disk, wherein the buffer space and permanently recorded space have physical locations on the hard disk, wherein the buffer space and the available free space is measured in units of hard disk space;
- buffering analog broadcast media content instances, received at a communications interface, as digitally compressed media content instances;
- buffering an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance;
- buffering digital broadcast media content instances, received at a communications interface, as digitally compressed media content instances;
- buffering digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances;
- buffering digital media content instances, received at a digital communications port from a local network, as digitally compressed media content instances;
- buffering digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances;
- determining the available free space after subtracting buffer space capacity from total disk space;
- reducing the available free space by the amount of the space used for the permanent media content instance files; and
- increasing the available free space by the amount of the space recovered from a deleted permanent media content instance files, wherein the indication of the free space available is configured in time of space available for the permanent media content instance files.

As explained above in association with claims 1 and 24, Applicants respectfully submit *Browne* in view of *Sanna* fails to disclose, teach, or suggest at least the above-emphasized claim features of claims 23 and 46. Further, Applicants respectfully submit that *Hendricks* fails to remedy the deficiencies of *Browne* and *Sanna*. Accordingly, Applicants respectfully submit that claims 23 and 46 are allowable over the art of record.

Additionally, as explained above, Applicants respectfully submit that the combination of *Browne* and *Sanna* is not obvious, and that the use of *Sanna* is improper in

view of the “as a whole inquiry” required under 35 U.S.C. § 103(a). Applicants respectfully submit that the use of *Hendricks* does not remedy these deficiencies. Accordingly, Applicants respectfully request that the rejection be withdrawn and further that *Sanna* be withdrawn as an improperly combined reference.

**Dependent Claims 15-17 and 38-40**

As explained above, Applicants respectfully submit that Browne in view of *Sanna* fails to disclose, teach, or suggest at least the above-emphasized claim features of independent claims 1 and 24, respectively. Further, Applicants respectfully submit that *Hendricks* fails to remedy these deficiencies. Since claims 15-17 and 38-40 incorporate the features of claims 1 and 24, respectively, Applicants respectfully submit that a *prima facie* case for obviousness has not been established, and respectfully request that the rejections to claims 15-17 and 38-40 be withdrawn.

**CONCLUSION**

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, and similarly interpreted statements, should not be considered well known since the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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